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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,652	01/24/2000	William G. Burroughs	KUC-718US	6089

46900 7590 06/19/2006

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EXAMINER
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TANG, KENNETH

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/489,652	BURROUGHS ET AL.	
	Examiner	Art Unit	
	Kenneth Tang	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-31, 34-42 and 45-52 is/are rejected.
- 7) ☒ Claim(s) 32-33 and 43-44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/4/05</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the Amendment filed on 3/23/06. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.
2. Claims 27-52 are presented for Examination.

### ***Allowable Subject Matter***

3. Claims 32-33 and 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 27-31, 34-42, and 45-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Burroughs et al. (hereinafter Burroughs) (US 6,691,190 B1).**

4. As to claim 27, Burroughs teaches in a system comprising a first processor and one or more other processors, a method for applying one or more interrupt signals to the one or more

other processors, the method comprising:

(a) generating, in the first processor, a data signal having two or more data bits, wherein each data bit has either a first bit or a second bit value (*Fig. 2, items 51, col. 3, lines 7-49, etc.*);

(b) transmitting the data signal from a data port of the first processor to a signal unit external to the first processor and the one or more other processors (*Fig. 2, items 21-24 and 51, etc.*);

(c) converting, in the signal unit, the data signal into one or more interrupt signals, wherein each analyzed data bit in the data signal having a specified bit value corresponds to a different interrupt signal (*Fig. 2, items 51, col. 3, lines 7-49, col. 5, lines 1-11, etc.*); and

(d) transmitting each interrupt signal from the signal unit to an interrupt port of an other processor (*Fig. 2, items 51-52, col. 3, lines 7-49, etc.*).

5. As to claim 28, Burroughs teaches wherein the data signal has a plurality of analyzed data bits having the specified value; the signal unit converts the data signal into a plurality of interrupt signals; and each interrupt signal is transmitted to a different interrupt port of an other processor (*Fig. 3, items 31-46, etc.*).

6. As to claim 29, Burroughs teaches wherein at least two interrupt signals are transmitted to two different ports of a single other processor (*Fig. 3, items 31-46, etc.*).

7. As to claim 30, Burroughs does not teach wherein at least two interrupt signals are transmitted to interrupt ports of at least two different other processors (*multiple independent*

*processor system having at least first and second processors) (see claim 1, etc.).*

5. As to claim 31, Burroughs teaches wherein the signal unit detects a transition in each data bit of the data signal over time to determine when to generate a corresponding interrupt signal *(See Fig. 4, col. 3, lines 7-49, etc.)*.

11. As to claim 34, Burroughs teaches wherein each interrupt signal is transmitted from the signal unit to a corresponding interrupt port of a corresponding other processor via a dedicated line *(Fig. 3, items 31-46, etc.)*.

12. As to claim 35, Burroughs teaches wherein the data signal is transmitted from the first processor to the signal unit via a shared data bus *(Fig. 3, items 31-46, etc.)*.

13. As to claim 36, Burroughs teaches applying an interrupt signal from an other processor to the first processor by: generating, in the other processor, an other data signal having one or more other data bits, wherein each other data bits has either the first bit value or the second bit value; transmitting the other data signal from a data port of the other processor to an other signal unit external to the first processor and the one or more other processors; converting, in the other signal unit the other data signal into one or more other interrupt signals by analyzing the bit value of each of one or more other data bits in the other data signal, wherein each analyzed other data bit in the other data signal having the specified bit value corresponds to a different other interrupt signal; and transmitting an other interrupt signal from the other signal unit to an

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interrupt port of the first processor (*Fig. 2, items 51, col. 3, Fig. 3, items 31-46, lines 7-49, etc.*).

14. As to claim 37, Burroughs teaches wherein at least one other interrupt signal is transmitted from the other signal unit to an interrupt port of at least one other processor (*Fig. 2, items 51-52, col. 3, lines 7-49, etc.*).

15. As to claims 38-42 and 45-48, they are rejected for the same reasons as stated in the rejections of claims 27-31 and 34-37.

16. As to claims 49-50, they are rejected for the same reasons as stated in the rejections of claims 1 and 35.

17. As to claim 51, it is rejected for the same reasons as stated in the rejection of claim 1.

18. As to claim 52, it is rejected for the same reasons as stated in the rejections of claims 27, 34-35 and 38. In addition, Burroughs teaches detecting a transition in each data bit of the data signal over time to determine when to generate a corresponding interrupt signal (*See Fig. 4, col. 3, lines 7-49, etc.*).

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***Response to Arguments***

6. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kt  
6/7/06

  
SUPERVISORY PATENT EXAMINER  
JUN 12 2006